

NeebSound Balanced Acoustic Pickup

Product Manual



Description

NeebSound's Balanced Acoustic Pickup is a shielded piezoelectric contact microphone, with a differential (balanced) output, encased in a selection of fancy hardwoods. The pickup comes with a 1/4" stereo jack. This allows the pickup, via a stereo adapter cable, to plug into an XLR input, or via a standard instrument cable, to plug into a 1/4" input.

The pickup is capable of being plugged into a standard piezo preamplifier, and with its shielding, produces minimal noise. However, when plugged into a preamp with a balanced input, it really shines! This allows it to produce almost no noise at all.

The Balanced Acoustic Pickup has a very rich sound, with better bass response and less "peakiness" than most other piezo pickups on the market.

The wood we use in the construction of the pickup is your choice of several types, including Cocobolo, Macassar Ebony, Figured Maple, and others. The wood is finished with linseed oil, and a top coat of super blonde shellac is applied to give it a deep lustre.

The pickups are available in two sizes (small and large). Small pickups are for guitars or higher-pitched instruments, such as mandolins and violins. Large

pickups are for guitars or lower-pitched instruments, such as upright basses or cellos. Guitars are right in the middle, and can utilize either size depending on your taste.

This product includes the following items:

- Balanced Acoustic Pickup, with
 - Shielded low-capacitance cable
 - ¼" stereo output jack (installed)
- 3 adhesive options:
 - Adhesive putty
 - Beeswax & rosin disc
 - 3M VHB adhesive disc
- Cable holder, to prevent the cable from banging against the instrument's top

Additional accessories are available through NeebSound, such as adapter cables, preamplifiers, endpin jacks, and carpenter jacks.

Preamplifier Considerations

The Balanced Acoustic Pickup can plug directly into your existing piezo preamplifier using a mono instrument cable. However, since most piezo preamps are single-ended (unbalanced), you will get a little bit of noise. This is true of any piezo pickup you would plug into such a preamp.

In order to get a really low noise floor, you can plug the pickup into a balanced (differential) preamp capable of a very high input impedance. NeebSound will start offering such a preamp for sale, called PiezoBuddy, in the Summer of 2022. In the meantime, there are options on the market that will serve the same purpose. Look for preamps designed for passive ribbon microphones.

Testing has been performed with the sE Electronics DM2 TNT preamp, but other ribbon mic preamps may work just as well. If you do get a DM2 TNT preamp, set the gain to 15dB and the impedance to 10MΩ. If you have a really loud instrument, and notice some clipping, you can lower the impedance one notch to 100kΩ. These preamps by sE Electronics are currently available from several retailers for about \$130.

Installation Considerations

It is recommended that if you are not knowledgeable about pickup installation, that you take the pickup to a luthier or instrument tech. **Any damage to your instrument, or the pickup, as a result of improper installation or removal, is not the responsibility of NeebSound.**

The pickups ship with 3 different adhesive options:

The first option is a sticky putty. If you choose to use this, knead the stick putty and spread it out over the bottom of the pickup (the unfinished side, with the logo). Press onto the top of your instrument for about 10 seconds, and you are good to go. To remove the adhesive, simply twist the pickup off and roll any remaining putty up. There may be a bit of oily residue. Remove this with a guitar/instrument polish that is safe to use on your finish.

The second option is a disc made of beeswax and rosin. If you choose to use this, heat the disc in a pan briefly, until it softens (do not let it melt). Then apply it to the back of the pickup, and press the pickup onto the top of your instrument for about 10 seconds, and you are good to go. To remove the adhesive, simply twist the pickup off. You may need to remove any stuck-on beeswax. If there is any residue, remove with a guitar/instrument polish that is safe to use on your finish.

The third option is a 3M VHB disc. This is a permanent solution for internal mounting. Do not apply to the exterior of your instrument. It is very difficult to remove and if removed, may result in damage to your finish. To apply, peel off the backing of one side of the disc, and apply to the back of the pickup. Then remove the other backing and press onto the underside of the instrument's top. The pickup is now permanently mounted.

If you are going to mount the pickup externally, using one of the first two adhesive options, you can simply use the already-installed jack and jack holder, to clip onto your endpin (if your instrument has one). If your instrument does not have an endpin, you may need to get a carpenter jack to clip onto your mandolin or violin, or a tailpiece jack holder for cellos and upright basses. Inquire with NeebSound about jack mounting options. We can direct you to the appropriate product.

If you are mounting internally to a guitar or mandolin, you will probably want an endpin jack. These require drilling out the endpin hole to accept the 1/4" stereo jack.

If you end up using a carpenter jack or an endpin jack, you will need to snip off the existing jack and solder the new jack onto the pickup's cable. There are 4 conductors in the cable. Red is Left/Positive, White is Right/Negative, Black is Ground, and the bare shielding is left unconnected. If you connect the shield to

ground at the jack, you may end up with a ground loop and noise. The shield is connected to ground at the pickup end of the cable.

Warranty

All products sold by NeebSound have a one-week warranty. This is one week from the day of product delivery, to the day you request a return. Once a return is requested, we will send you an acknowledgment, and you will have three weekdays to get the product postmarked and on the way back to us. We do not pay for return shipping; that is the customer's responsibility. We do, however, offer a full refund of the purchase price for any reason, within the above time-frame. If you just decided you don't want it, but it works fine, that's okay.